1. Description

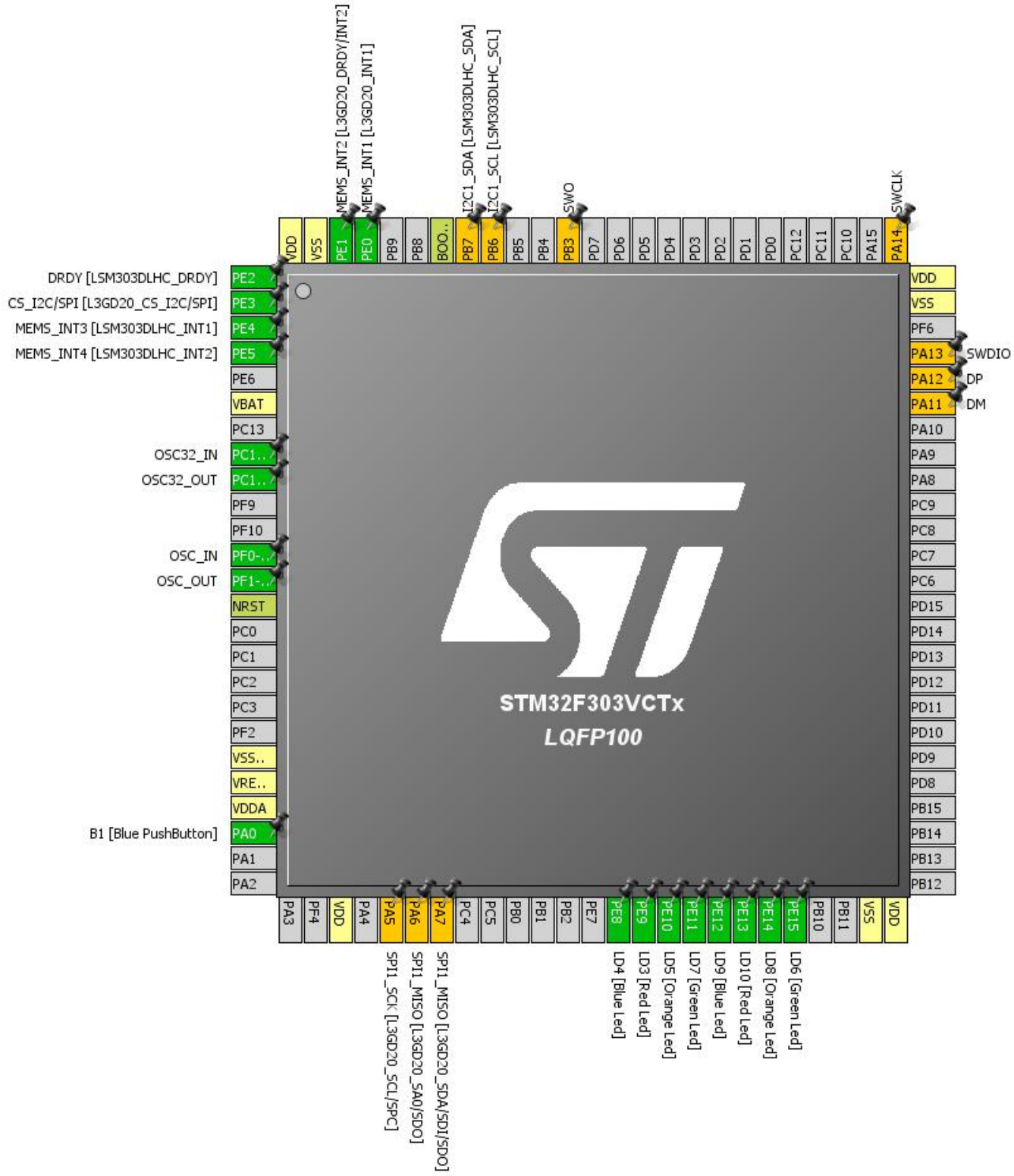
1.1. Project

Project Name	can-test-f3d
Board Name	STM32F3DISCOVERY
Generated with:	STM32CubeMX 4.15.1
Date	03/20/2017

1.2. MCU

MCU Series	STM32F3
MCU Line	STM32F303
MCU name	STM32F303VCTx
MCU Package	LQFP100
MCU Pin number	100

2. Pinout Configuration



3. Pins Configuration

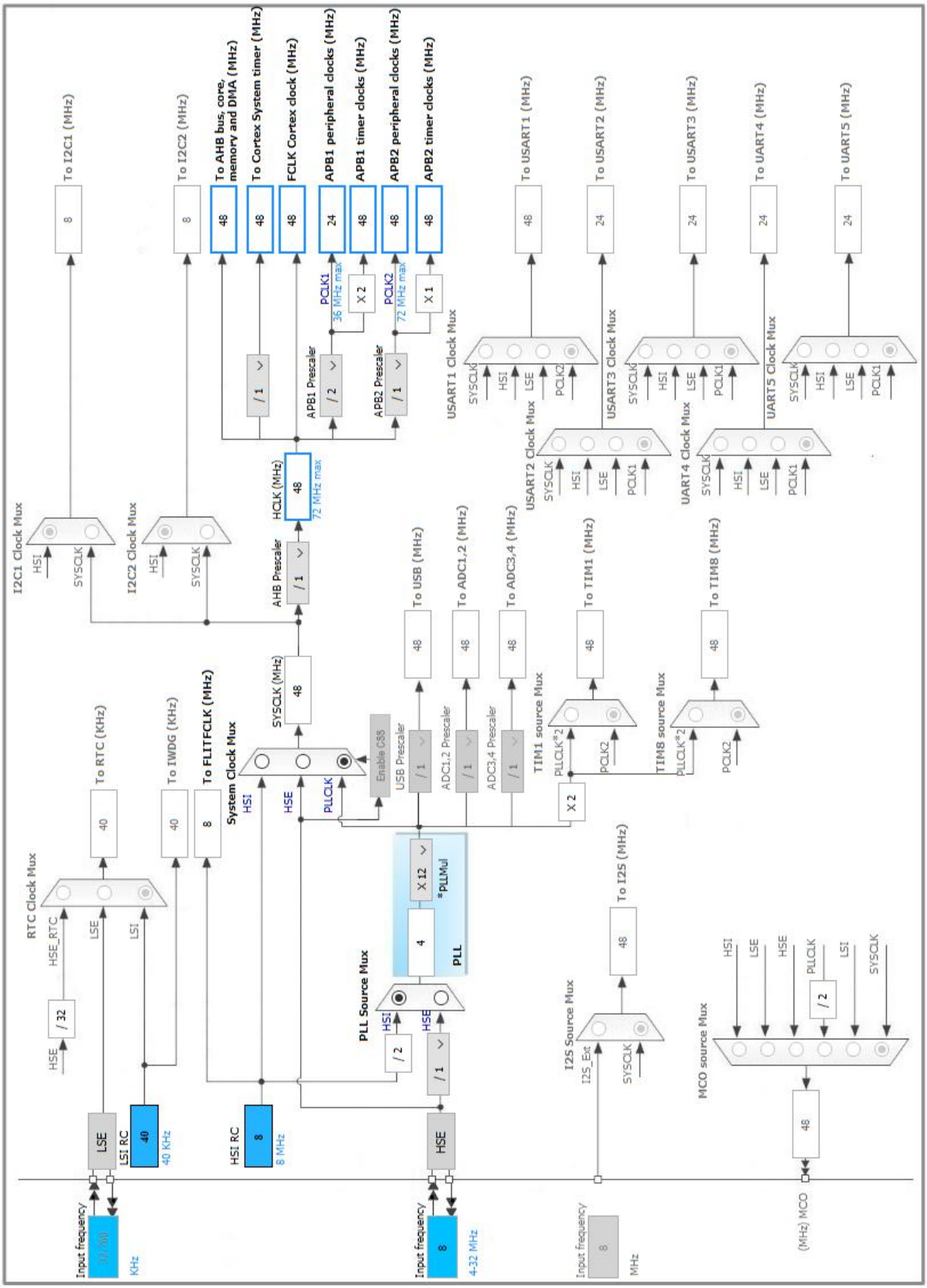
Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
1	PE2	I/O	GPIO_EXTI2	DRDY [LSM303DLHC_DRDY]
2	PE3 *	I/O	GPIO_Output	CS_I2C/SPI [L3GD20_CS_I2C/SPI]
3	PE4	I/O	GPIO_EXTI4	MEMS_INT3 [LSM303DLHC_INT1]
4	PE5	I/O	GPIO_EXTI5	MEMS_INT4 [LSM303DLHC_INT2]
6	VBAT	Power		
8	PC14-OSC32_IN	I/O	RCC_OSC32_IN	OSC32_IN
9	PC15-OSC32_OUT	I/O	RCC_OSC32_OUT	OSC32_OUT
12	PF0-OSC_IN	I/O	RCC_OSC_IN	OSC_IN
13	PF1-OSC_OUT	I/O	RCC_OSC_OUT	OSC_OUT
14	NRST	Reset		
20	VSSA/VREF-	Power		
21	VREF+	Power		
22	VDDA	Power		
23	PA0 *	I/O	GPIO_Input	B1 [Blue PushButton]
28	VDD	Power		
30	PA5 **	I/O	SPI1_SCK	SPI1_SCK [L3GD20_SCL/SPC]
31	PA6 **	I/O	SPI1_MISO	SPI1_MISO [L3GD20_SA0/SDO]
32	PA7 **	I/O	SPI1_MOSI	SPI1_MISO [L3GD20_SDA/SDI/SDO]
39	PE8 *	I/O	GPIO_Output	LD4 [Blue Led]
40	PE9 *	I/O	GPIO_Output	LD3 [Red Led]
41	PE10 *	I/O	GPIO_Output	LD5 [Orange Led]
42	PE11 *	I/O	GPIO_Output	LD7 [Green Led]
43	PE12 *	I/O	GPIO_Output	LD9 [Blue Led]
44	PE13 *	I/O	GPIO_Output	LD10 [Red Led]
45	PE14 *	I/O	GPIO_Output	LD8 [Orange Led]
46	PE15 *	I/O	GPIO_Output	LD6 [Green Led]
49	VSS	Power		
50	VDD	Power		
70	PA11 **	I/O	USB_DM	DM
71	PA12 **	I/O	USB_DP	DP

Pin Number LQFP100	Pin Name (function after reset)	Pin Type	Alternate Function(s)	Label
72	PA13 **	I/O	SYS_JTMS-SWDIO	SWDIO
74	VSS	Power		
75	VDD	Power		
76	PA14 **	I/O	SYS_JTCK-SWCLK	SWCLK
89	PB3 **	I/O	SYS_JTDO-TRACESWO	SWO
92	PB6 **	I/O	I2C1_SCL	I2C1_SCL [LSM303DLHC_SCL]
93	PB7 **	I/O	I2C1_SDA	I2C1_SDA [LSM303DLHC_SDA]
94	BOOT0	Boot		
97	PE0	I/O	GPIO_EXTI0	MEMS_INT1 [L3GD20_INT1]
98	PE1	I/O	GPIO_EXTI1	MEMS_INT2 [L3GD20_DRDY/INT2]
99	VSS	Power		
100	VDD	Power		

* The pin is affected with an I/O function

** The pin is affected with a peripheral function but no peripheral mode is activated

4. Clock Tree Configuration



5. IPs and Middleware Configuration

5.1. RCC

High Speed Clock (HSE): Crystal/Ceramic Resonator

Low Speed Clock (LSE) : Crystal/Ceramic Resonator

5.1.1. Parameter Settings:

System Parameters:

VDD voltage (V)	3.3
Prefetch Buffer	Enabled
Flash Latency(WS)	1 WS (2 CPU cycle)

RCC Parameters:

HSI Calibration Value	16
HSE Startup Timout Value (ms)	100
LSE Startup Timout Value (ms)	5000

5.2. SYS

Timebase Source: SysTick

*** User modified value**

6. System Configuration

6.1. GPIO configuration

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
RCC	PC14-OSC32_IN	RCC_OSC32_IN	n/a	n/a	n/a	OSC32_IN
	PC15-OSC32_OUT	RCC_OSC32_OUT	n/a	n/a	n/a	OSC32_OUT
	PF0-OSC_IN	RCC_OSC_IN	n/a	n/a	n/a	OSC_IN
	PF1-OSC_OUT	RCC_OSC_OUT	n/a	n/a	n/a	OSC_OUT
Single Mapped Signals	PA5	SPI1_SCK	Alternate Function Push Pull	No pull up pull down	Low	SPI1_SCK [L3GD20_SCL/SPC]
	PA6	SPI1_MISO	Alternate Function Push Pull	No pull up pull down	Low	SPI1_MISO [L3GD20_SA0/SDO]
	PA7	SPI1_MOSI	Alternate Function Push Pull	No pull up pull down	Low	SPI1_MISO [L3GD20_SDA/SDI/SDO]
	PA11	USB_DM	Alternate Function Push Pull	No pull up pull down	**High ***	DM
	PA12	USB_DP	Alternate Function Push Pull	No pull up pull down	**High ***	DP
	PA13	SYS_JTMS-SWDIO	n/a	n/a	**n/a**	SWDIO
	PA14	SYS_JTCK-SWCLK	n/a	n/a	**n/a**	SWCLK
	PB3	SYS_JTDO-TRACESWO	n/a	n/a	**n/a**	SWO
	PB6	I2C1_SCL	Alternate Function Open Drain	Pull up	Low	I2C1_SCL [LSM303DLHC_SCL]
	PB7	I2C1_SDA	Alternate Function Open Drain	Pull up	Low	I2C1_SDA [LSM303DLHC_SDA]
GPIO	PE2	GPIO_EXTI2	**External Event Mode with Rising edge trigger detection ***	No pull up pull down	n/a	DRDY [LSM303DLHC_DRDY]
	PE3	GPIO_Output	Output Push Pull	No pull up pull down	Low	CS_I2C/SPI [L3GD20_CS_I2C/SPI]
	PE4	GPIO_EXTI4	**External Event Mode with Rising edge trigger detection ***	No pull up pull down	n/a	MEMS_INT3 [LSM303DLHC_INT1]
	PE5	GPIO_EXTI5	**External Event Mode with Rising edge**	No pull up pull down	n/a	MEMS_INT4 [LSM303DLHC_INT2]

IP	Pin	Signal	GPIO mode	GPIO pull/up pull down	Max Speed	User Label
			trigger detection *			
	PA0	GPIO_Input	Input mode	No pull up pull down	n/a	B1 [Blue PushButton]
	PE8	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD4 [Blue Led]
	PE9	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD3 [Red Led]
	PE10	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD5 [Orange Led]
	PE11	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD7 [Green Led]
	PE12	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD9 [Blue Led]
	PE13	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD10 [Red Led]
	PE14	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD8 [Orange Led]
	PE15	GPIO_Output	Output Push Pull	No pull up pull down	Low	LD6 [Green Led]
	PE0	GPIO_EXTI0	**External Event Mode with Rising edge trigger detection ***	No pull up pull down	n/a	MEMS_INT1 [L3GD20_INT1]
	PE1	GPIO_EXTI1	**External Event Mode with Rising edge trigger detection ***	No pull up pull down	n/a	MEMS_INT2 [L3GD20_DRDY/INT2]

6.2. DMA configuration

nothing configured in DMA service

6.3. NVIC configuration

Interrupt Table	Enable	Preenmption Priority	SubPriority
Non maskable interrupt	true	0	0
Hard fault interrupt	true	0	0
Memory management fault	true	0	0
Pre-fetch fault, memory access fault	true	0	0
Undefined instruction or illegal state	true	0	0
System service call via SWI instruction	true	0	0
Debug monitor	true	0	0
Pendable request for system service	true	0	0
System tick timer	true	0	0
PVD interrupt through EXTI line16	unused		
Flash global interrupt	unused		
RCC global interrupt	unused		
Floating point unit interrupt	unused		

*** User modified value**

7. Power Consumption Calculator report

7.1. Microcontroller Selection

Series	STM32F3
Line	STM32F303
MCU	STM32F303VCTx
Datasheet	023353_Rev13

7.2. Parameter Selection

Temperature	25
Vdd	3.6

8. Software Project

8.1. Project Settings

Name	Value
Project Name	can-test-f3d
Project Folder	C:\stm32\projects\can-test-f3d
Toolchain / IDE	SW4STM32
Firmware Package Name and Version	STM32Cube FW_F3 V1.5.0

8.2. Code Generation Settings

Name	Value
STM32Cube Firmware Library Package	Add necessary library files as reference in the toolchain project configuration file
Generate peripheral initialization as a pair of '.c/.h' files	No
Backup previously generated files when re-generating	No
Delete previously generated files when not re-generated	Yes
Set all free pins as analog (to optimize the power consumption)	No